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| APPLICATION NO.                             | FI         | LING DATE    | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|------------|--------------|----------------------|---------------------|------------------|
| 10/520,204                                  | 08/26/2005 |              | Henry Daniell        | CHL-T111XC1         | 7677             |
| 23557                                       | 7590       | 11/07/2006   |                      | · EXAN              | MINER            |
| O1 122                                      |            | OYD & SALIWA | KUBELII              | KUBELIK, ANNE R     |                  |
| A PROFESSIONAL ASSOCIATION<br>PO BOX 142950 |            |              |                      | ART UNIT            | PAPER NUMBER     |
| GAINESVILLE, FL 32614-2950                  |            |              |                      | 1638                |                  |

DATE MAILED: 11/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|  | Application No.  | Applicant(s)  |  |  |  |  |  |
|--|--|---|--|--|--|--|--|
| ••   | 10/520,204   | DANIELL, HENRY  |  |  |  |  |  |
| Office Action Summary  | Examiner   | Art Unit  |  |  |  |  |  |
|  | Anne R. Kubelik  | 1638  |  |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply   |  |   |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).   | ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim vill apply and will expire SIX (6) MONTHS from to become ABANDONEI | l. ely filed the mailing date of this communication. O (35 U.S.C. § 133). |  |  |  |  |  |
| Status   |  |   |  |  |  |  |  |
| 1) Responsive to communication(s) filed on  2a) This action is <b>FINAL</b> . 2b) This  3) Since this application is in condition for allowar closed in accordance with the practice under E   | action is non-final.<br>nce except for formal matters, pro   |   |  |  |  |  |  |
| Disposition of Claims  |  |   |  |  |  |  |  |
| 4) ⊠ Claim(s) <u>1-40</u> is/are pending in the application.  4a) Of the above claim(s) is/are withdray  5) □ Claim(s) is/are allowed.  6) □ Claim(s) is/are rejected.  7) ⊠ Claim(s) <u>26-28,32 and 33</u> is/are objected to.  8) ⊠ Claim(s) <u>1-25,29 and 34-40</u> are subject to restr  | vn from consideration.   | t.  |  |  |  |  |  |
| Application Papers   |  |   |  |  |  |  |  |
| 9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) access applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Examine  | epted or b) objected to by the Eddrawing(s) be held in abeyance. See ion is required if the drawing(s) is obj                                | e 37 CFR 1.85(a).<br>ected to. See 37 CFR 1.121(d).                       |  |  |  |  |  |
| Priority under 35 U.S.C. § 119   |  |   |  |  |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of: <ol> <li>Certified copies of the priority documents have been received.</li> <li>Certified copies of the priority documents have been received in Application No</li> <li>Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> </ol> </li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul> |  |   |  |  |  |  |  |
| Attachment(s)  | _  |   |  |  |  |  |  |
| Notice of References Cited (PTO-892)     Notice of Draftsperson's Patent Drawing Review (PTO-948)     Information Disclosure Statement(s) (PTO/SB/08)     Paper No(s)/Mail Date  | 4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal Pa  | ite   |  |  |  |  |  |

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1. Claims 32-33 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been placed into restriction groups.

2. Claims 26-28 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claims have not been placed into restriction groups.

## Election/Restrictions

3. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions that are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-25 and 37, all in part, and claims 29-31 and 34-36, drawn to a plastid transformation vector encoding *merA* and *merB*, plants transformed with it, a method of using it to produce the proteins, and a method of using it to detoxify mercury.

Group II, claim(s) 1-25 and 37, all in part, and claim 38, drawn to a plastid transformation vector encoding *onr*, plants transformed with it, and a method of using it to produce the protein.

Group III, claim(s) 1-25 and 37, all in part, and claim 39, drawn to a plastid transformation vector encoding a cytochrome P450, plants transformed with it, and a method of using it to produce the protein.

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Group IV, claim(s) 1-25 and 37, all in part, and claim 40, drawn to a plastid transformation vector encoding phytochelatin synthase, plants transformed with it, and a method of using it to produce the protein.

The inventions listed as Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The technical feature linking Groups I-IV appears to be a plastid transformation vector encoding a protein that can remediate a contaminant.

However, Daniell (WO 99/10513, citied in the search report) suggests that sequences encoding phosphinothricinacetyl transferase, which detoxifies the contaminant phosphinothricin, by placed within his plastid transformation vectors (pg 34, lines 21-25). Thus, claim 1 among others, is not novel.

Therefore, the technical feature linking Groups I-IV is not special and the Groups are not so linked under PCR Rule 13.1.

Applicant is advised that for the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne R. Kubelik, whose telephone number is (571) 272-0801. The examiner can normally be reached Monday through Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg, can be reached at (571) 272-0975.

The central fax number for official correspondence is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet. The USPTO's PAIR system provides Internet-based access to patent application status and history information. It also enables applicants to view the scanned images of their own application file folder(s) as well as general patent information available to the public.

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

Anne Kubelik, Ph.D. October 31, 2006

ANKE KUBELIK, PH.D. PBIMARY EXAMINER